

Table B: Added Cost of Medicare Coverage of Consultations by Telemedicine from Rural Areas:

					\$ Millions		
				Part B			Part A
Fiscal		Added	Induced	Averted			Averted
Year		Consults	Services	Transfers	Net Cost		Transfers
1999		\$46	\$81	(\$8)	\$119		(\$59)
2000		74	134	(\$12)	\$196		(\$95)
2001		106	194	(\$18)	\$282		(\$136)
2002		144	265	(\$24)	\$385		(\$182)
2003		187	347	(\$31)	\$503		(\$234)

Low Estimate	
	Total
	Net Cost
	\$60
	\$100
	\$150
	\$200
	\$270

5 year estimate middle

Table A: Added Cost of Medicare Coverage of Consultations by Telemedicine from Rural Areas							
					\$ Millions		
				Part B			Part A
Fiscal		Added	Induced	Averted			Averted
Year		Consults	Services	Transfers	Net Cost		Transfers
1999		\$76	\$268	(\$9)	\$335		(\$65)
2000		106	385	(\$12)	\$479		(\$91)
2001		141	511	(\$16)	\$637		(\$120)
2002		182	666	(\$20)	\$828		(\$153)
2003		228	844	(\$25)	\$1,047		(\$190)

5 year estimate middle

	Total
	Net Cost
	\$270
	\$390
	\$520
	\$670
	\$860

Table C: Added Cost of Medicare Coverage of Consultations by Telemedicine from Rural Areas:							
					\$ Millions		
				Part B			Part A
Fiscal		Added	Induced	Averted			Averted
Year		Consults	Services	Transfers	Net Cost		Transfers
1999		\$115	\$609	(\$4)	\$720		(\$31)
2000		148	805	(\$5)	\$948		(\$40)
2001		186	1,013	(\$6)	\$1,193		(\$50)
2002		231	1,269	(\$8)	\$1,491		(\$61)
2003		281	1,561	(\$10)	\$1,832		(\$73)

High Estimate	
	Total
	Net Cost
	\$690
	\$910
	\$1,140
	\$1,430
	\$1,760

Table 1

Table 1: Relative Use of Services by Rural and Non Rural Beneficiaries, 1992							
					Rural	MSA	Total
1	Non-HMO Beneficiaries (000)				8.874	22.445	31.319
	Physician Supplier Reimbursement						
2	Total Services Per Enrollee				\$755.74	\$1,130.08	\$1,024.02
3	Primary Care Visits Per Enrollee				\$119.43	\$187.45	\$168.18
4	Consultations Per Enrollee				\$21.75	\$42.43	\$36.57
5	Non Consult, Non-Primary Services				\$614.56	\$900.20	\$819.27
6	Increase In Rural Physician Cost if Rural Consults = Urban Consults						2.7%
7	Induced non-consult, non-primary services, if Rural = Urban						37.8%
8	Proportion Consults:Consults+Primary, Number of Visits						9.1%
9	Twice Product						6.9%
	Outpatient Hospital & Independednt Lab Reimbursement						
10	Total Reimbursement				\$344.11	\$421.36	\$399.47
11	Induced Increase, if Rural = Urban						22.4%
12	Proportion Consults:Primary, Number of Visits						9.1%
13	Twice Product						4.1%
1	1992 MCBS Cost and Use File						
2	1992 MCBS Controlled to OACT 1992 Estimate						
3-5	1992 Physician Supplier File Used to allocate Reimbursement to primary care and consults						
6	(line 4 MSA - line 4 Rural)/line 2 Rural						
7	(line 5 MSA - line 5 Rural)/line 2 Rural						
8&12	1992 MCBS Cost and Use File						
11	(line 10 MSA - line 10 Rural)/line 10 Rural						
10	1992 MCBS Cost and Use File, controlled to OACT 1992 Estimate						

Table 2

Table 2: Adjustment to Increased Use of Physician Services Due to Telemedicine							
1	Increase In Rural Physician Payments if Rural = Urban Use						2.7%
2	Assume that half of consultations have half of allowed fee						2.1%
3	Lower exposure to primary care as entrance to medical system						1.8%
4	Phase in as Physicians Become Accustomed to Use & Facilities Permit						
			Year	1	0.33		0.6%
				2	0.43		0.8%
				3	0.53		1.0%
				4	0.63		1.2%
				5	0.73		1.3%
	Effect on Ancillary Services						
5	Increased Use of Ancillary Services Induced by Consults						6.9%
6	More limited local facilities						5.2%
7	Lower exposure to primary care as entrance to medical system						4.7%
8	Phase in as Physicians Become Accustomed to Use & Facilities Permit						
			Year	1	0.33		1.5%
				2	0.43		2.0%
				3	0.53		2.5%
				4	0.63		2.9%
				5	0.73		3.4%
1	See Table 1						
2	Depends on actual reimbursement policy						
3	90% of line 2						
4	Estimate: Some operations are already in place: New less costly systems may accelerate growth						
5	See Table 1						
6	Estimate of 75%, Enrollee still has to travel for some recommended tests						
7	Same as 3						
8	Central estimate of phase in rate						

Table 2

[illegible]

Table 3

Table 3: Increased Use of Outpatient Hospital Services & Independent Lab Due to Telemedicine							
1	Increase In OP Payments if Rural = Urban Use						4.1%
2	More limited local facilities						3.1%
3	Lower exposure to primary care as entrance to medical system						2.8%
4	Phase in as Physicians Become Accustomed to Use & Facilities Permit						
				Year	1	0.33	0.9%
					2	0.43	1.2%
					3	0.53	1.5%
					4	0.63	1.7%
					5	0.73	2.0%
1	See Table 1						
2	Estimate : 75%						
3	Same as line 3 Table 2						
4	Central estimate of phase in rate						

Table 4

Table 4: Medicare Part B Added Cost for Telemedicine, Amounts in \$ Millions								
	Physician and other services paid by fee schedule							
			Total		Proportion		New	
Fiscal			Physician		of utilization		Consult	
Year			Payments (1)		in Rural Areas		Payments (2)	
	1999		\$49,436		25.2%		\$76	
	2000		52,502		25.5%		\$106	
	2001		56,056		25.7%		\$141	
	2002		60,302		25.9%		\$182	
	2003		64,819		26.0%		\$228	
	Outpatient & Independent Lab							
			Total OP Hospital				Induced	
Fiscal			And Ind. Lab				Other	
Year			Payments (4)				Services (5)	
	1999		\$25,079		33.4%		\$77	
	2000		28,961		33.8%		\$117	
	2001		31,037		34.1%		\$155	
	2002		34,658		34.3%		\$208	
	2003		38,640		34.5%		\$270	
	1 OAct Projections, December 1996							
	2 Table 2, line 4 times (1) times the proportion of non-HMO enrollees in rural areas							
	3 Table 2, line 9 times (1) times the proportion of non-HMO enrollees in rural areas							
	4 OAct Projections, December 1996							
	5 Table 3, line 5 times (4) times the proportion of non-HMO enrollees in rural areas							
	Proportion of non-HMO utilization in Rural Areas: HMO enrollees mostly urban							
	1992		1999	2000	2001	2002	2003	
	0.23206		0.2517706	0.2546546	0.2570098	0.258805	0.260320234	
		% in HMOs						Rel use ph
			Total	HMOs	non-hmos	Rural non		rel use op
	1992	0.042	33682	1414.644	32267.356	9131.6617	0.283	0.23206
	1993	0.047	34360	1614.92	32745.08	9315.477	0.284484785	0.2332775
	1994	0.055	34988	1924.34	33063.66	9485.7366	0.286893122	0.2352524
	1995	0.066	35619	2350.854	33268.146	9656.8096	0.290271949	0.238023
	1996	0.08	36208	2896.64	33311.36	9816.4957	0.29468913	0.2416451
	1997	0.093	36724	3415.332	33308.668	9956.3905	0.2989129	0.2451086

Table 4

	1998	0.105	37178	3903.69	33274.31	10079.476	0.30292067	0.2483949
	1999	0.117	37610	4400.37	33209.63	10196.598	0.307037373	0.2517706
	2000	0.127	38056	4833.112	33222.888	10317.514	0.31055441	0.2546546
	2001	0.135	38482	5195.07	33286.93	10433.009	0.31342659	0.2570098
	2002	0.141	38902	5485.182	33416.818	10546.877	0.315615832	0.258805
	2003	0.146	39337	5743.202	33593.798	10664.811	0.3174637	0.2603202

Table 4

0.3295777
0.3340567
0.3378832
0.3410081
0.34339
0.3454005

Table 5

Table 5: Proportion of Discharges that are Transfers to Other Short Term Hospitals						
Bed Size		For Profit	Government	Non-Profit		Total
6-99		7.6%	4.7%	5.2%		5.5%
100-199		4.8%	4.5%	3.7%		3.9%
200-299		2.3%	2.4%	3.3%		3.1%
300-499		2.2%	8.7%	2.7%		3.1%
500+		0.0%	4.0%	1.5%		1.7%
Total		4.5%	5.0%	3.3%		3.6%
Source: 1990 National Hospital Discharge Survey						

Table 6

Table 6: Savings from Reduced Transfers from Rural Hospitals								
1	Proportion of Discharges that are from Rural Hospitals							20.9%
2	Proportion of discharges that are transfers from rural hospitals							5.5%
3	Assumed proportion after telemedicine fully phased in							3.9%
4	Savings per transfer as % of discharge cost							50.0%
5	Savings as a percent of Hospital Payments							0.2%
1	1994, from HCFA Review Statistical Supplement, 1996							
2	Proxied: rate for hospitals < 100 beds, 1990 NHDS							
3	Proxied: rate for hospitals 200-500 beds, 1990 NHDS							
4	Estimate: transferring hospital would be paid only DRG instead of partial plus DRG for receiving hospital							
5	(1)*(2-3)*(4)							
Savings from Avoided Transfers (\$millions)								
Hospital								
							Associated	
			Total				Part B	
Fiscal			Hospital		Estimated		Payments	
Year			Payments *		Savings #		Avoided @	
	1999		\$118,309		\$65		\$9	
	2000		126,630		\$91		\$12	
	2001		135,694		\$120		\$16	
	2002		145,127		\$153		\$20	
	2003		155,011		\$190		\$25	
*	December 1996 OAct Projection							
#	line 5 above times total hospital cost times phase in % from table 2							
@	Total physician cost * line 5 * portion of Physician cost in Hospital * phase in							
		portion IP = \$28.0 bill / \$88.9 bill =			0.3149606	(HCFA Review, Table 58)		

Table 6

[illegible]